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Federal Communications Commission
Office of Secretary

December 23, 2003

VIA HAND DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
c/o Natek, Inc., Inc.
236 Massachusetts Avenue, N.E., Suite 110
Washington, DC 20002

WC 03-266

Re: In the Matter of Level 3 Communications LLC's Petition for Forbearance
Under 47 U.S.C. § 160(c) and Section 1.53 of the Commission's Rules
from Enforcement of Section 251(g), Rule 51.701(b)(1), and Rule 69.5(b)

Dear Ms. Dortch:

On behalf of Level 3 Communications LLC ("Level 3"), enclosed please find an original and nine (9) copies of Level 3's Petition for Forbearance filed pursuant to Section 10(c) of the Communications Act, 47 U.S.C. § 160(c), and Section 1.53 of the Commission's rules.

Please date stamp the enclosed extra copy of this filing and return it to the courier. Please do not hesitate to contact us if you have any questions regarding this filing.

Sincerely,


John T. Nakahata
Charles D. Breckinridge

Enclosures

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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DEC 23 2003

Federal Communications Commission
Office of Secretary

In the Matter of)

LEVEL 3 COMMUNICATIONS LLC)

Petition for Forbearance Under)
47 U.S.C. § 160(c) from Enforcement)
of 47 U.S.C. § 251(g), Rule 51.701(b)(1),)
and Rule 69.5(b))

WC Docket No. 03-266

**PETITION FOR FORBEARANCE UNDER 47 U.S.C. § 160(c)
FROM ENFORCEMENT OF
47 U.S.C. § 251(g), RULE 51.701(b)(1), AND RULE 69.5(b)**

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December 23, 2003

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SUMMARY

As Chairman Michael Powell has stated, IP-based voice communication is “a lifestyle-changing, new, fantastic technology” and “the most vibrant innovation to come into the American economy, the global economy in decades – in centuries even.”¹ As Commissioner Michael Copps stated at the FCC’s December 1, 2003, Voice-over-Internet Protocol (“VoIP”) forum, “[i]t’s incumbent on [the Commission] to identify good policy going forward and not just shoehorn VoIP into statutory terms or regulatory pigeonholes without adequate justification. It’s no slam dunk that the old rules even apply.”² Bearing these principles in mind with respect to IP communications, the Commission must distinguish those rules that, in a competitively neutral and technologically appropriate manner, support important social goals such as public safety, law enforcement, access for persons with disabilities and universal service, from legacy economic regulations that are unnecessary to restrain market power.³

Level 3 Communications LLC (“Level 3”) now files this petition requesting that the Commission forbear from enforcing its governing statute and rules⁴ to the extent that they could be interpreted to permit Local Exchange Carriers (“LECs”) to impose interstate or intrastate access charges on Internet Protocol (“IP”) – Public Switched

¹ *Kudlow & Kramer: Interview with Chairman Michael K. Powell* (CNBC Television, Nov. 19, 2003) (transcript attached as Exhibit 1).

² Opening Remarks of Michael J. Copps, FCC Voice Over Internet Protocol Forum (Dec. 1, 2003), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-241765A1.pdf (last visited Dec. 19, 2003).

³ Some economic regulations are necessary to restrain market power. Those economic regulations remain justified.

⁴ In particular, Level 3 requests forbearance from enforcement of Section 251(g) of the Communications Act of 1934, the exception clause of Rule 51.701(b)(1), and, where applicable, Rule 69.5(b). 47 U.S.C. § 251(g); 47 C.F.R. § 51.701(b); 47 C.F.R. § 69.5(b).

Telephone Network (“PSTN”) traffic and on certain PSTN-PSTN traffic that is incidental thereto. The requested forbearance would extend not just to Level 3, but also to all other carriers handling Voice-embedded IP communications that originate or terminate on the PSTN. Level 3 excludes from this forbearance request areas other than those served by an incumbent local exchange carrier (“ILEC”) that is exempt from Section 251(c) pursuant to Section 251(f)(1).

Grant of this petition is required by Section 10(a) of the Communications Act of 1934, as amended (“Act”).⁵ In accordance with Section 10(a)(3), forbearance is in the public interest because, by forbearing, the Commission will bring to an end the current legal uncertainty as to whether interstate and intrastate access charges apply to IP-PSTN and incidental PSTN-PSTN traffic. ILECs are already demanding that carriers servicing IP voice providers find ways to identify the location of the IP end of an IP-PSTN communication – a technically difficult and maybe impossible task – and that they pay access charges whenever the IP end of a communication is in a different LEC local calling area than the PSTN end. Forbearing, and ending the current legal uncertainty regarding access charges, will ensure that Voice-embedded IP applications and services can develop without needing to retrofit to accommodate the piecemeal and obsolete interstate and intrastate access charge systems. Forbearance will allow innovative Voice-embedded IP applications to continue to blossom and flourish, increase investment, spur product and technological innovation, and drive deployment and demand for advanced services.

⁵ 47 U.S.C. § 160(c).

The Commission is already working to develop a unified intercarrier compensation regime to replace today's "patchwork" of compensation regimes that "treats different types of carriers and different types of service disparately, even though there may be no significant differences in the costs among carriers or services."⁶ Granting this petition would place IP-PSTN voice communications, and incidental PSTN-PSTN communications, into a uniform regime under Section 251(b)(5) of the Act. It makes absolutely no sense – and will not further the public interest – to take IP-PSTN traffic, which today is generally not subject to access charges, shift that traffic into the access charge regimes, and then reconvert all access traffic to a unified regime that more closely resembles Section 251(b)(5).

Moreover, consistent with Section 10(a)(1), the rules from which Level 3 seeks forbearance are neither necessary to ensure that the exchange of traffic between LECs and telecommunications carriers serving IP voice providers is just and reasonable, nor are they unjustly or unreasonably discriminatory. If the Commission grants this petition for forbearance, traffic exchange will simply occur pursuant to Section 251(b)(5) of the Act, the Commission's implementing rules, and state-approved, and in some cases arbitrated, interconnection agreements. The statute, rules and agreements will ensure that rates and practices are just and reasonable, and not unjustly or unreasonably discriminatory. To the extent there is some difference between the traffic subject to this proceeding and circuit-switched traffic, that difference is transitional only, as the Commission can (and ultimately will) fully address any such difference as it adopts a unified intercarrier compensation regime.

⁶ Notice of Proposed Rulemaking, *Developing a Unified Intercarrier Compensation Regime*, 16 FCC Rcd. 9610, 9613, 9616 (¶ 5, 11) (rel. Apr. 27, 2001).

Applying access charges to IP-PSTN and incidental PSTN-PSTN traffic also is not necessary to protect consumers, consistent with Section 10(a)(2). Although consumers have an interest in the preservation and enhancement of universal service, universal service can be preserved and enhanced without reliance on access charges. The Act itself authorizes both the FCC and the state commissions to adopt explicit universal service support mechanisms. Indeed, courts have already held that the FCC cannot maintain implicit subsidies. In any event, it is unlikely that IP-PSTN traffic will grow so quickly as to present any danger to universal service before the Commission adopts and completes a transition to a unified intercarrier compensation regime.

Accordingly, all the prerequisites for forbearance enumerated in Section 10(a) are satisfied, and the Commission is therefore required to forbear from the application of interstate and intrastate access charges to IP-PSTN, and incidental PSTN-PSTN, Voice-embedded IP communications. The Commission can and must take this step now to end this unnecessary economic regulation.

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
LEVEL 3 COMMUNICATIONS LLC)	
)	Docket No. _____
Petition for Forbearance Under)	
47 U.S.C. § 160(c) from Enforcement)	
of 47 U.S.C. § 251(g), Rule 51.701(b)(1),)	
and Rule 69.5(b))	

**PETITION FOR FORBEARANCE UNDER 47 U.S.C. § 160(c)
FROM ENFORCEMENT OF
47 U.S.C. § 251(g), RULE 51.701(b)(1), AND RULE 69.5(b)**

Level 3 Communications LLC ("Level 3"), a telecommunications carrier providing interstate and intrastate telecommunications services pursuant to Section 214 of the Communications Act of 1934 and state certificates of public convenience and necessity, hereby requests that the Commission forbear from the enforcement of certain express and implied provisions of Section 251(g) of the Communications Act of 1934, as amended ("Act" or "Communications Act"), Rule 51.701(b)(1), and, where applicable, Rule 69.5(b).⁷ These provisions could potentially result in the imposition of interstate or intrastate switched access charges on Internet Protocol ("IP")-to-PSTN and PSTN-to-IP voice communications (collectively "IP-PSTN services" or "IP-PSTN communications"). Level 3 also seeks the same forbearance with respect to certain traffic incidental to the provision of IP-PSTN services that may both originate and terminate on the PSTN. If granted, the requested forbearance would extend not just to Level 3, but also to all other

⁷ 47 U.S.C. § 251(g); 47 C.F.R. § 51.701(b); 47 C.F.R. § 69.5(b).

carriers handling Voice-embedded IP communications that originate or terminate on the PSTN. To the extent these provisions are even applicable, Level 3 is not requesting that the Commission forbear from enforcing Section 251(g), Rule 51.701(b)(1), or Rule 69.5(b) with respect to traffic exchanged between Level 3 and a local exchange carrier (“LEC”) where the LEC is operating within the geographic service area of an incumbent local exchange carrier (“ILEC”) that is currently exempt from Section 251(c) pursuant to Section 251(f)(1)’s rural exemption. Level 3 makes these requests pursuant to Section 10(c) of the Communications Act and Section 1.53 of the Commission’s rules.⁸

The Commission should grant this petition, limited as described below, while the Commission completes its work to develop a comprehensive, uniform intercarrier compensation regime. This will allow IP communications that embed voice applications (“Voice-embedded IP”)⁹ to develop with “the cleanest slate possible,”¹⁰ regardless of whether such communications occur wholly on an IP network or between an IP network and the PSTN. Forbearance with respect to these statutory and regulatory provisions meets each element of the three-pronged test for forbearance in Section 10(a) of the Communications Act. Forbearance will result in needed regulatory certainty, increased investment, product and technology innovation and increased deployment of advanced services. Upon grant of this petition, Voice-embedded IP-PSTN traffic would be

⁸ 47 U.S.C. § 160(c); 47 C.F.R. § 1.53.

⁹ Voice-embedded IP communications are often referred to as “Voice-over-Internet Protocol” or “VoIP.” Level 3 uses “Voice-embedded IP” because that term more accurately describes voice as one of many applications that can be transmitted in IP format, including applications that integrate voice with data, video, or other applications.

¹⁰ Chairman Michael K. Powell, Address to the United States Telecommunications Association (Oct. 14, 2003), *as reported in* Michael Feazel, Powell Says Internet Regulation Should Start from Blank Slate, COMMUNICATIONS DAILY, Oct. 15, 2003, at 4.

exchanged between a LEC and a telecommunications carrier serving a Voice-embedded IP service provider pursuant to Section 251(b)(5) of the Act and Subpart H of Part 51 of the Commission's rules.

Voice-embedded IP-PSTN communications represent the evolution away from traditional circuit-switched technologies, and provide more than a functional equivalent to circuit-switched voice telephony. They are a more flexible and powerful way to connect and manage voice communications and are also a necessary component of any IP-IP voice application that needs to receive or send communications to end-users on the PSTN. Voice-embedded IP, both IP-IP and IP-PSTN, allows a provider, *inter alia*:

- to integrate voice transmission with much more powerful data processing capabilities;
- to integrate voice, data and video applications;
- to detect a user's "presence" on a network (much like instant messaging);
- to route communications according to sophisticated user-specified preferences, including variations by time of day, calling party number, and any other parameter that can be defined through a computerized database; and
- to protect the privacy and safety of individuals by means of customized call screening and routing.

Moreover, because IP-based softswitch technology allows for decentralized direction and innovation, IP-originated and/or terminated voice services have seen and are likely to continue to see faster innovation than circuit-switched networks. Voice-embedded IP communications will be an engine of innovation and growth as the circuit-switched communications platform and Internet applications sector converge.

Although IP-PSTN communications undergo a "net protocol" conversion, and thus can be classified as "information services" under existing FCC precedent, a favorable ruling on this petition would settle the question of whether access charges

should apply to the circuit-switched portion of an IP-PSTN communication when that traffic is exchanged between a LEC (such as an ILEC) and another telecommunications carrier (such as a CLEC) before the traffic reaches the information service provider (“ISP”). Moreover, even if this Commission, a state commission, or a court were to conclude that some Voice-embedded IP-PSTN communications constitute “telecommunications services,” granting this petition would reaffirm that such traffic is to be exchanged on a co-carrier basis pursuant to Section 251(b)(5) and make clear that legacy switched access charges do not apply.

Such a reaffirmation has become timely and critical because ILECs are asserting that access charges apply to such traffic, with threats of lawsuits to collect such charges retroactively.¹¹ Grant of this petition will reduce regulatory uncertainty and litigation costs, permitting these innovative new IP applications to develop without forcing them into the economic and regulatory constructs of the circuit-switched access charge system. Granting this petition also is appropriate because the Commission is considering adoption of a uniform intercarrier compensation regime to govern the exchange of all telecommunications traffic, including “exchange access” traffic. Forbearance from the imposition of access charges on Voice-embedded IP-PSTN communications avoids shifting this traffic from exchange under reciprocal compensation (today’s *de facto status quo*) to exchange subject to access charges, simply to shift this traffic yet again to exchange under a uniform intercarrier compensation system (which is much more likely to resemble reciprocal compensation than access arrangements). Grant of this petition would not affect any other duties that Voice-embedded IP providers, or carriers serving

¹¹ See, e.g., Letter from Notices Manager, Contract Management, SBC, to Jennifer McMann, Level 3 Communications LLC (Nov. 19, 2003) (attached as Exhibit 2).

Voice-embedded IP providers, may have under applicable state or federal law, regardless of whether the Commission ultimately concludes that Voice-embedded IP providers are “information services” providers or “telecommunications carriers.”

As Chairman Powell recently stated, “politics is usually about incumbent vested interest, not the future.”¹² This petition gives this Commission the opportunity to decline to protect the interests of ILEC circuit-switched telephony providers as new means of communicating via IP – including but not limited to voice service – develop and, of necessity, interconnect with the legacy PSTN. Grant of this petition is not just good policy; it is required by the terms of the Act, particularly the mandatory forbearance requirements contained in Section 10.

I. SPECIFIC FORBEARANCE REQUESTED.

Level 3 requests that the Commission, with respect to Level 3 and any other telecommunications carrier handling Voice-embedded IP traffic that originates or terminates on the PSTN, forbear from enforcement of:

- Section 251(g) of the Act, insofar as it applies to the receipt of compensation for switched “exchange access, information access, and exchange services for such access to interexchange carriers and information service providers,”¹³ pursuant to state and federal access charge rules;
- any limitation on the scope of Section 251(b)(5) that is implied from Section 251(g) preserving LEC receipt of intrastate switched access charges.¹⁴

¹² Chairman Michael K. Powell, Addressing Academic and Telecom Industry Leaders at the University of California (UCSD) (Dec. 9, 2003), *available at* http://www.fcc.gov/commissioners/powell/mkp_speeches_2003.html (excerpts from unofficial transcript attached as Exhibit 3).

¹³ 47 U.S.C. § 251(g).

¹⁴ See Order on Remand and Report and Order, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic*, 16 FCC Rcd. 9151, 9168 (¶ 37 n.66) (rel. Apr. 27,

- the clause of Rule 51.701(b)(1) that excludes from the definition of telecommunications traffic subject to the Subpart H of Part 51 of the Commission's rules "telecommunications traffic that is interstate or intrastate exchange access, information access, or exchange services for such access (see FCC 01-131, paragraphs 34, 36, 39, 42-43);"¹⁵
- Rule 69.5(b), to the extent applicable;¹⁶ and

Level 3 requests forbearance with respect to traffic that is carried by a LEC on its side of the point of interconnection with a telecommunications carrier such as Level 3 and that:

- originates on the PSTN within the same LATA of the point of interconnection between the LEC and the interconnected telecommunications carrier, and is passed to an end-user from an IP network provider in IP format;¹⁷ or
- is terminated over the PSTN in circuit-switched format after having been transmitted from an end-user to an IP provider in IP format, and exchanged between the telecommunications carrier serving an IP service provider and the terminating LEC at a point of interconnection within the same LATA as the called party.¹⁸

With the exception of incidental and *de minimis* "phone-to-phone" traffic, calls that do not undergo a net protocol conversion on an end-to-end basis would not be within the

2001) (hereinafter "*ISP-Bound Traffic Order*"), *rev'd on other grounds and remanded*, *WorldCom, Inc. v. FCC*, 288 F.3d 429 (D.C. Cir. 2002) ("*WorldCom*"). Throughout this petition, Level 3 will refer collectively to forbearance from the express terms of Section 251(g), as well as forbearance from this implied restriction on the scope of Section 251(b)(5) inferred from Section 251(g), as "forbearance from the enforcement of Section 251(g)." If the Commission should decide that Voice-embedded IP is inseparably interstate, rather than intrastate, in nature, the request for forbearance with respect to any limitation on the scope of Section 251(b)(5) with respect to intrastate access charges would be moot.

¹⁵ 47 C.F.R. § 51.701(b)(1).

¹⁶ 47 C.F.R. § 69.5(b). By requesting forbearance from Rule 69.5(b), where applicable, Level 3 does not concede that the rule is otherwise applicable to all of the traffic subject to this petition.

¹⁷ See Exhibit 4 for a typical network routing diagram for such an IP-PSTN communication that originates on the PSTN.

¹⁸ See Exhibit 5 for a typical network diagram for such an IP-PSTN communication that terminates on the PSTN.

scope of this forbearance request, with the points of comparison being the demarcation points between the end-users and their respective network providers.¹⁹

Level 3 also requests that the Commission forbear from the enforcement of these same provisions of Section 251(g), Rule 51.701(b)(1), and, where applicable, Rule 69.5(b) with respect to incidental PSTN-PSTN traffic. Such incidental traffic includes, for example, traffic that would ordinarily be terminated on a customer's IP-PBX, but which is "forwarded" to a particular end-user's cellphone. In addition, an IP end-user may "leak" traffic onto the public switched network, much like a "leaky PBX." There is no feasible way for such traffic to be segregated or distinguished from the customer's other PSTN-IP traffic, nor is it feasible for a Voice-embedded IP communications provider to monitor its customer's disposition of such traffic.

For the purposes of this petition, incidental "PSTN-PSTN" traffic does not include traffic that originates and terminates in circuit-switched format (*i.e.*, no net protocol conversion) and that is exchanged between the calling party's LEC and another telecommunications carrier when the interconnected telecommunications carrier is the calling party's 1+ presubscribed interexchange carrier ("IXC") or a calling card/dial-around provider selected by the calling party.²⁰ Again, for the purposes of determining

¹⁹ In other words, a communication that is delivered by an end-user to an IP network provider in IP form, and is terminated over the circuit switched PSTN, would fall within the scope of the requested forbearance even if the end-user employs customer premises equipment (such as Vonage's Multimedia Terminal Adapter) to convert a communication to and from analog form within the customer's own internal network.

²⁰ AT&T has filed a petition seeking a declaratory ruling that access charges do not apply to "phone-to-phone" (*i.e.* PSTN-PSTN) voice over Internet Protocol ("VoIP"). *See Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services Are Exempt from Access Charges*, WC Docket No. 02-361 (filed Oct. 18, 2002) (hereinafter "*AT&T Petition*"). Level 3 supports AT&T's petition. *See Comments of Level 3 Communications, LLC, AT&T Petition*, WC Docket No. 02-361 (filed Dec. 18, 2002).

whether a “net protocol conversion” occurs, traffic should be compared at the demarcation points between the end-users and their respective network providers.

Level 3 is not seeking to have the Commission forbear from enforcing Section 251(g) as it applies to the obligation to compensate the LEC for leasing special access facilities. This petition extends only to forbearance from the application of switched access charges.

As noted above, Level 3 is not requesting that the Commission forbear from enforcing Section 251(g), Rule 51.701(b)(1), and Rule 69.5(b) with respect to traffic exchanged between Level 3 and a LEC operating within the geographic service area of an ILEC that currently is exempt from Section 251(c) pursuant to Section 251(f)(1). State commissions will then be able to consider this forbearance when weighing the public interest in response to requests to terminate a carrier’s rural exemption. In addition, this Commission can pursue a case-by-case evaluation with respect to these exempt rural areas without substantially impeding the introduction and development of Voice-embedded IP communications throughout the rest of the country.²¹

By limiting this petition to IP-PSTN and incidental PSTN-PSTN traffic, Level 3 seeks to complement AT&T’s petition, rather than raising the identical issues presented in that petition. Level 3, however, would support extending the forbearance sought by Level 3 to include all, not just incidental, PSTN-PSTN Voice-embedded IP. This petition takes no position on whether access charges should apply to “enhanced” calling cards, and grant of this petition would have no impact on that issue. *See AT&T Corp. Petition for Declaratory Ruling Regarding Enhanced Prepaid Calling Card Services*, WC Docket No. 03-133 (filed May 15, 2003).

²¹ Rural telephone companies, as defined in the Act, serve only about 13% of all lines, and not all rural companies remain exempt under Section 251(f). *See* Universal Service Administrative Company, First Quarter 2004 FCC Filing, Appendix HC05, “High Cost Loop Support Projected by State by Study Area” (appendix HC05 identifies 23,236,452 working loops in rural study areas and 158,500,642 working loops in non-rural study areas, for a total of 181,737,094 working loops; dividing the number of

In filing this request for forbearance, Level 3 is *not* conceding that it is otherwise appropriate to apply access charges to the traffic covered by this petition, whether in exempt rural areas or elsewhere. As discussed further below, in order to conclude that access charges should apply to IP-PSTN and/or incidental PSTN-PSTN traffic, the FCC and the applicable state commission would have to resolve myriad issues including: (1) whether the particular Voice-embedded IP communication was a “telecommunications service” or an “information service”; (2) if an “information service”, whether it was interconnected with the PSTN through the ESP exemption or pursuant to carrier arrangements; (3) if intrastate access charges are to apply, whether the service is intrastate in nature; (4) whether it is permissible to apply access charges pursuant to existing FCC rules, state rules, and the FCC’s findings in the 1998 Report to Congress; and (5) whether it is in the public interest to apply access charges in this context.²² By eliminating the statutory and regulatory bases for imposing circuit-switched access charges on IP-PSTN and incidental PSTN-PSTN traffic, this petition seeks to avoid the lengthy litigation, and attendant regulatory uncertainty, that would otherwise be required to resolve these issues at the FCC and before 51 state public utility commissions.

Finally, pending the completion of the Commission’s consideration of the remand of its *ISP-Bound Traffic Order*, Level 3 is not seeking forbearance from the interim rules established therein with respect to intercarrier compensation for dial-up ISP-bound

working loops in rural study areas by the total number of working loops demonstrates that rural loops represent 12.8% of all lines). A case-by-case approach to exempt rural areas would, however, slow the offering of new Voice-embedded IP services to consumers in those areas.

²² See Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd. 11501 (1998) (hereinafter “1998 Report to Congress”).

traffic. Unless otherwise negotiated by the parties, the restrictions established by that Order would remain in place pending completion of that remand proceeding. As a practical matter, however, the relative use of facilities that handle both ISP-bound traffic and origination/termination of Voice-embedded IP communications will shift, as Level 3 terminates Voice-embedded IP traffic over the same interconnection trunks that carry ILEC-originated, ISP-bound traffic to Level 3. Moreover, all ILEC-terminated Voice-embedded IP traffic would be “originating” traffic for the purposes of applying the “3:1 ratio of terminating to originating traffic” that presumptively delineates ISP-bound traffic from other traffic.²³

In all areas subject to this petition (*i.e.*, excluding exempt rural areas), the impact of grant of this petition would be as follows:

- all IP-PSTN and incidental PSTN-PSTN traffic exchanged by a LEC and a telecommunications carrier within the same LATA as the PSTN end-user would be exchanged on a “minute-is-a-minute” basis pursuant to Section 251(b)(5) over interconnection trunks pursuant to an interconnection agreement rather than access trunks; intercarrier compensation would be paid to the terminating carrier at the rates specified for Section 251(b)(5) traffic in interconnection agreements;
- interstate and intrastate switched access charges would not (even arguably) apply to IP-PSTN and incidental PSTN-PSTN traffic, regardless of geographic end-points, because the Commission will have forborne from enforcing the relevant portions of Section 251(g), rules issued thereunder and the Commission’s access charge rules; and
- rules for compensation for ISP-bound traffic would not change pending the Commission’s completion of the remand from *WorldCom, Inc. v. FCC*.²⁴

As discussed in Section III, below, grant of this request for forbearance is required by Section 10 of the Act.

²³ *ISP-Bound Traffic Order* 16 FCC Rcd. at 9187-88 (¶ 79).

²⁴ 288 F.3d 429 (D.C. Cir. 2002).

II. BACKGROUND

A. By Fusing Data and Voice Streams, Voice-Embedded IP Applications Create Innovative New Service Opportunities and Greater Efficiencies for Telecommunications Users.

As Chairman Powell has observed, Voice-embedded IP communication is “a lifestyle-changing, new fantastic technology” and “the most vibrant innovation to come into the American economy, the global economy, in decades – in centuries even.”²⁵ IP communication technology has broken the mold for wireline telephony and wireline telephony regulation. Voice-embedded IP allows the seamless fusing of voice and data applications in a single environment.

Voice-embedded IP and wholly circuit-switched wireline services are moving in different directions. The greatest distinctions between the two will emerge only in the future as entrepreneurs and programmers develop innovative applications that take advantage of Voice-embedded IP’s flexibility. Existing applications, however, allow a glimpse of the future potential of unbridled IP-PSTN Voice-embedded IP communications:

- **Innovative Tele-Working.** With Voice-embedded IP, employees are less tied to schedules and bricks-and-mortar offices.
 - For instance, a stay-at-home parent who works in technical support could use Voice-embedded IP to direct incoming calls to his home office between the hours of 8:00 a.m. and 3:00 p.m., while his children are at school. During that “on” period, he would use his broadband connection to receive tech support calls at home, with full access to customer and product data. Periodic workers, regardless of time of day or length of availability, could log on to the network and work flexible hours.
 - This flexibility will allow telecommunications-intensive companies to use part-time employees spread out across the country. For example, a call that originates in Denver for an airline may first go through a voice

²⁵ *Kudlow & Kramer: Interview with Chairman Michael K. Powell* (CNBC Television, Nov. 19, 2003) (transcript attached as Exhibit 1).

response unit owned by the airline. Based on staffing, call volume or other criteria that the airline selects, that communication may be sent across the country to a large call center or to part-time employees located in rural and urban areas.

- A physician might use the same capabilities to respond to patient emergency calls at home, with full access to patient records stored in her office, and have the ability to alert the system that she is not available for calls (they would be routed to a colleague), or direct that the “call” be forwarded to a cellphone or wireless PDA.²⁶
- **Multimedia Conferencing.** With Voice-embedded IP, multiple users can communicate with one another via voice and video, while drawing on data sources (spreadsheets, financial statements, etc.) simultaneously. IP-PSTN voice communications would support a flexible conferencing platform, allowing some attendees to participate via traditional circuit-switched devices (such as a wireless PDA, thereby combining circuit-switched voice, such as GSM, with Internet access over Wi-Fi or GPRS), while others use voice and data capabilities embedded in an IP-capable desktop.
 - Workgroups that are geographically dispersed can work collectively on specific data-oriented tasks. As one example, an engineering team with expertise spread around the world can collaborate via voice and share data and documents in real time to revise design specifications.
 - A university board with trustees in different cities can meet efficiently and effectively via videoconference (again, some in person, some on the phone, others via computer). At the meeting, participants can collectively review charts, access databases, and compile reports, all in real time. Simultaneously, two or more of the participants can “instant message” each other or hold a separate and private voice conversation.
 - A geographically dispersed family could meet to share family digital photos or videos of grandchildren performing in a school play, while exchanging comments as if they were together in person.²⁷
- **High-Power Call Centers.** Voice-embedded IP communications allow entities providing customer service to offer more focused assistance to customers. For customers with broadband access to the Internet, companies can share data,

²⁶ See Declaration of Jeffrey Pelletier ¶ 19(a) (Dec. 22, 2003) (hereinafter “Pelletier Declaration”) (attached as Exhibit 6); see also Juanita Ellis, *Voice, Video, and Data Network Convergence* (May 21, 2003), available at <http://searchnetworking.techtarget.com> (last visited Dec. 23, 2003).

²⁷ See, e.g., Pelletier Declaration ¶ 19(b).

instant messages, voice communications, and URLs in real time. For all customers, IP communications technology with a voice application allows the operator to receive the customer's voice communication and relevant customer data simultaneously. The operator can access case histories, account and credit information, inventory data, shipping info, and much more instantly and automatically at the exact moment the customer makes contact (whether by circuit-switched or IP device).²⁸

- **Unified Messaging.** Voice-embedded IP allows a user to have a single message platform for all types of communications. Rather than receive e-mail on a computer, voice-mail on the phone, faxes on fax machines, and pages on a pager, Voice-embedded IP can route them all to a single unified mailbox, and users can retrieve them all from a single point of contact, whether using an IP or a circuit-switched device. A voice-mail can be converted into text using voice recognition software, and an e-mail can be converted into a voice message. Users can organize, store, and prioritize these messages in the manner that suits them best, just like many computer users file e-mail messages in various folders, or screen e-mail messages from some senders and give high priority to others. Users can tell the network how, when and where they want to be notified – such as ensuring that a call from a doctor or teacher is routed to home, work, cellphone or to computer desktop, depending on where a person is, the time of day, and the devices that are actually turned on.²⁹
- **Expanded Call Management and Screening.** Unlike the PSTN, which can handle no more than two incoming voice calls at one time, Voice-embedded IP can manage limitless incoming voice calls, video feeds, and e-mails. Voice-embedded IP can handle these incoming communications in a variety of ways, depending on the user's preferences. The system can take a voice message, page the user, convert a voice message to text (or a text message to voice), route the communication to another end-point, or deliver the communication in another format. Moreover, Voice-embedded IP users can retrieve messages in one format (e.g., text) while actively using another (e.g., voice). Thus, while a PSTN user must wait until a call is completed to check on messages that came in while the call was underway, Voice-embedded IP allows users to convert those messages into text and retrieve them immediately or to play them in audio format on top of the ongoing connection.³⁰

Expanded call management and screening also serves an important safety function. For example, victims of stalking can screen all calls from unrecognized phone numbers and forward them to the police or a security agency.

²⁸ See, e.g., Pelletier Declaration ¶ 19(c)

²⁹ See, e.g., Pelletier Declaration ¶ 19(d); see also Cade Metz, *The Return of VoIP* (Oct. 22, 2003), available at <http://www.pcmag.com> (last visited Dec. 11, 2003).

³⁰ See, e.g., Pelletier Declaration ¶ 19(e).

- **Availability Awareness.** On the PSTN, callers dial a number without knowing whether the party on the other end is available, whether the caller will have to leave a message, or whether the line will just ring and ring. Voice-embedded IP, by contrast, allows users to specify their availability. In other words, Voice-embedded IP customers can indicate that they are free for a voice conversation, for video-conferencing, for e-mail, for gaming, or that they are not available at all. Voice-embedded IP customers can also use this technology to wait until people are actually available to receive calls before contacting them, or to alert all attendees when everyone is available for a virtual conference.³¹
- **Location Scheduling.** Voice-embedded IP users can create a daily location schedule (and update it anytime from anywhere) indicating where communications should be forwarded. In other words, an end-user could direct communications (of any form) to a mobile device during her commute, to her office during the day, to her brother's house during the holidays, and to a unified messaging center when she is eating dinner. As explained below, the end-user's configuration preferences stay with her wherever she may be when she accesses the network.³²
- **Simplified Relocation.** Voice-embedded IP makes moves and changes much less complicated and less expensive. For instance, to allow an employee using a circuit-switched phone to move offices, a company must map extensions, re-program special call-handling features, and activate new phone sets, and the employee's phone configurations have to be re-modified or re-customized. Voice-embedded IP simplifies the process. Employees moving to an office in another country (or, for that matter, families moving to another state) take their customized features with them automatically because Voice-embedded IP configuration data is tied to the user rather than a physical extension.³³

The "(3)Tone" services offered by Level 3 Enhanced Services, an affiliate of Level 3, are on the leading edge of Voice-embedded IP communications applications. (3)Tone is a suite of enhanced voice and data services that combines the features of traditional voice systems, such as Centrex, PBX and key-systems, with the power and capability of the Internet, PC browsers and mobile phone services. (3)Tone allows an

³¹ See, e.g., Pelletier Declaration ¶ 19(f).

³² See, e.g., Pelletier Declaration ¶ 19(g).

³³ See, e.g., Pelletier Declaration ¶ 19(h); see also Joe Hernick, *Telephony 101: Giving Voice to Your Network* (Oct. 2, 2003), available at <http://www.nwc.com> (last visited Dec. 23, 2003).

enterprise to use both its internal network and the Internet to connect all of its office locations into a single worldwide “virtual campus,” with a single intra-company dialing plan. It provides unified messaging capabilities, integrates high-quality audio and web conferencing capabilities, and puts these applications on the desk of each end-user. With (3)Tone services, both the individual end-user and the network administrator have unprecedented control and management of their communications applications.

Although some individual applications – such as enhanced call waiting – resemble services that are available, in crude form, on the PSTN from circuit-switched service providers, the PSTN applications represent the pinnacle of technological achievement through the SS7-based Advanced Intelligent Network. With IP voice communications, by contrast, the sophisticated services that exist today are first-generation building blocks from which untold future applications will evolve and grow.

IP communications, including Voice-embedded applications, are much more powerful than circuit-switched telephony because of the flexibility and decentralized nature of IP itself. An IP communications system reformats voice and data inputs and transmits them as a stream of packets over a digital data network, including the public Internet and private IP backbones. These packets can be directed to any location, whether an IP address or a telephone number. Individual IP packets are routed and flow to the destination independently, each following the best path available. This means that the packets from a single communication may reach their destination along a variety of routes. On the destination end, the IP communications system resolves any problems resulting from packets arriving out of sequence (or not arriving at all) and reassembles them. An IP application may then convert the packets into voice sounds, or it may

manipulate them into a different form – such as speech-to-text conversion. The voice packets may also be combined with other packets, such as those containing data, through a variety of applications like those described above.

Moreover, IP networks create a decentralized environment for developing and implementing new applications. For the circuit-switched network, new capabilities must be centrally planned and developed by a handful of circuit-switch manufacturers, typically at a high per-module/per-switch cost. In order to induce those manufacturers to develop those new capabilities, the new applications must be deployed by the small handful of very large ILECs. IP networks break this mold. Call processing and applications are separated from the operation of the underlying network. With an IP network, intelligence can be stored anywhere on the network, including in servers operated by an end-user at the “edge” of the network. Applications can be created for particular end-users, and loaded onto the servers serving those end-users, without embedding those same applications throughout the network.

In addition, because the IP end of an IP-PSTN communication translates a telephone number into a (changeable) IP address (and is not even limited to termination at an IP address), only the PSTN end of the communication has a telephone number that is tethered to a particular geographic location. On the IP end of the communication, the telephone number is no more than an addressing mechanism for communications originated from circuit-switched devices. For example, with respect to IP-PSTN calls, the calling party initiates the communication on the PSTN by dialing the ten-digit number associated with the IP end-user (e.g., an end-user using Level 3’s (3)Tone service). When the called party’s number is a Level 3 number in the same LATA, that call is

carried by the originating caller's LEC and exchanged with Level 3 at a point of interconnection.³⁴ Level 3 carries the communication over its common carrier transmission facilities to the Level 3 point of presence on the LATA. From this point, the telephone number has no further use other than to identify the end-user that has given additional routing instructions to Level 3. After the communication enters the Level 3 network, the communication undergoes a protocol conversion (*i.e.*, conversion to packets), the ten-digit phone number is translated to an IP address (which can vary according to the end-user's instructions), and the communication is routed according to the instructions given by the Level 3 end-user to whom the call is directed. The end-user may route the communication to a terminating point within the same local calling area as the caller, or to a location in another part of the state, a different state, or different country. Because IP addresses are not geographically defined, there is no way to monitor the geographic end point of the communication. Moreover, the end-user may change the destination IP address, direct that particular communications be routed to a circuit-switched device, and change (even in the middle of the "call") the device or destination to which a communication is routed. This routing is described generically in Exhibit 4.

Conversely, for Voice-embedded IP communications originating on an IP network and terminating on the PSTN, the originating device may be anywhere on an IP network – within a single company's LAN, at a remote office in the same town as the called party, or in a cyber cafe halfway around the world. The originating party hands its

³⁴ Calls destined for a number outside the LATA generally are carried over the calling party's presubscribed IXC. The calling party's presubscribed IXC pays access on the origination of such a call. Nothing in this petition would alter that obligation in the case of a dialed number that is associated with an exchange outside of the calling party's LATA.

traffic in IP format to an IP transmission provider (*e.g.*, an Internet Service Provider), which may be a third party, a Level 3 affiliate, or Level 3. The communication is routed over IP networks, and passed among IP networks, until it reaches the Level 3 media gateway closest to the wire center associated with the PSTN number at which the communication is to terminate. At the gateway, the IP-formatted communication undergoes a protocol conversion, from IP to circuit-switched. Level 3 then carries the communication over its common carrier facilities to a point of interconnection with the LEC serving the called party. This routing is described generically in Exhibit 5.

Thus, unlike circuit-switched telephone numbers used in conjunction with the PSTN, which bear a relationship to the location of the telephone, telephone numbers used in conjunction with Voice-embedded IP communications are divorced from geography. With respect to many Voice-embedded IP applications, trying to create a unique map between telephone numbers and geographic locations would severely disrupt the usefulness of a Voice-embedded IP system.³⁵ Inferring a user's geographic location based on the exchange with which a particular telephone number is assigned is futile with respect to numbers used for IP communications. Even ILECs recognize as much. "It's hard to determine jurisdictionally where that IP end-point is," says a Verizon executive. "You don't know if it's next door, across the state or around the world."³⁶

This lack of geographic specificity on the IP end of the call is inherent in IP technology. *IP communications do not follow dedicated circuit paths through the*

³⁵ One such application is an IP WAN that allows remote locations to be connected into a company's network (voice and data) as if they were all within the same campus.

³⁶ Glenn Bischoff & Vince Vittore, *States Push to Regulate Voice as Voice*, TELEPHONY, Sept. 22, 2003, at 8-9 (quoting David Young, Director of Technology Policy, Verizon Communications).